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IR-2053 DIV (2-2500)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

In re Patent Application of:

New York, New York

Thomas Herman

Date: June 7, 2004

Serial No.: 09/723,655

Filed: November 28, 2000

For: PROCESS FOR MANUFACTURING A LOW VOLTAGE MOSFET POWER
DEVICE HAVING A MINIMUM FIGURE OF MERIT

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

REPLY BRIEF PURSUANT TO 37 CFR §1.193(b)(1)

Sir:

This Reply Brief is submitted to the Examiner's Answer dated April 6, 2004.

Responsive to paragraph (5) of the Examiner's Answer, allegedly objectionable statements in the Summary of Invention section of the Brief are not intended and do not add to the invention. Thus, the statements should not be treated as new matter.

The allegedly objectionable statements are provided to explain the industrial advantages of the present invention, and explain that the present invention is not a trivial change of the prior art.

Regarding paragraph (7) of the Examiner's Answer, the brief states that claims 9-14, 21 and 22 stand or fall together. Paragraph (7) mistakenly states that claims 9-14, 21 and 22 "do not" stand or fall together. Correction is requested.

In paragraph (10) of the Examiner's Answer it is stated that "Davies discloses in Figures 1-4; and column 4, lines 38-43 wherein the stripes of oxide and polysilicon do not include sidewall spacers during implanting and diffusing of the first base diffusion stripes, the source diffusions, and the second base diffusions." (Examiner's Answer, page 6, lines 2-5).

Davies at col. 4, lines 33-34, provides:

Width of sidewall spacer 18 determines relative spacing between source 15, base 12, and low resistivity region 17. If this spacing is too small, or varies widely due to the process control of forming spacer 18, low resistivity region 17 will extend into channel 26, destroying the device. For example, it has been found that if a thin oxide, analogous to oxide 15 shown in FIG. 1, is used rather than a sidewall spacer 18, insufficient separation between base 12 and low resistivity region 17 is provided, and correspondingly low yields results.

The excerpt thus states that if the spacers are too small the device is destroyed, and that when a thin spacers were employed poor yield resulted.

The Examiner relies on this excerpt for the proposition that Davies teaches a device in which the sidewalls are eliminated. However, quite clearly, there is no example in which the sidewalls are eliminated. Rather, the example relied on by the Examiner (the example that produces low yield) includes a thin sidewall. Therefore, it is incorrect to state that Davies teaches an example in which the sidewalls do not exist.

In order to have an example in which no sidewall exists, the teaching of Davies has to be modified to exclude the sidewalls altogether. However, as argued in the Brief, such modification would be contrary to the teaching of Davies in that Davies states that even thinning the sidewall leads to poor results. If thinning leads to poor results, logically elimination leads to worse results. Thus, Davies teaches away from eliminating the sidewalls.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner of Patents and Trademarks, P.O. Box 1450, Alexandria, VA 22313-1450, on June 7, 2004

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June 7, 2004

Date of Signature

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Respectfully submitted,


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